President Harold Grall’s Address

It is with much heartfelt sincerity that I say what a privilege it is to be President of the North Plains Groundwater Conservation District. This honor is something I never strived for or thought to attain. So I thank my fellow board members and staff for their vote of confidence. To work with such a diverse group who are bound to represent their counties is always an exhilarating experience. The North Plains is fortunate to have such strong leadership representing the area. I am humbled that I am least, but again fortunate to serve with them.

Unlike our national leaders, we do not enjoy the luxury of “kicking things down the road,” and at the “end of the day,” we are required to make decisions that often require compromise. We realize that in our efforts to do the “right thing” as individuals we are bound by one common denominator, and that is, we are all on the same team. We understand fully that decisions have consequences that include us as producers and our communities, so we take this personally because we know that any decision that impacts people economically is very personal.

The people of the area should feel confident that their board will never settle for mediocrity, and we will constantly challenge ourselves in this effort. Hopefully now we can move past the emotion that regulation brings about and work on constructive ways to help us all prosper now and in the future. We know that we will continue to live in a world of scarcity, and even at an accelerated pace, and that it will be innovation not regulation that will equip us more in the years to come.

So, in the future, we will continue our efforts to partner with private industry and government agencies, bringing everyone to the table to come up with new ideas, which includes our most valuable resource… our Stakeholders. We will be relentless in our efforts to explore new technologies and farming practices that will be of benefit to the area. We undertake all of these efforts, with the expectation of countering any burdens placed upon the people, while meeting our number one mandate… to conserve water for future generations.

Water Conservation Grower Meetings 2017

Growers in the district had the opportunity to attend two water conservation grower meetings on September 7 in Dumas and September 20 in Perryton. By attending one of these field days in its entirety, growers qualified to apply for a portion of the district’s new $300,000 cost share fund for water management tools. Based on their participation in the two meetings, 29 growers are qualified to apply for the cost share funds provided by the Texas Water Development Board. This program, the Irrigation Conservation Initiative, will provide cost share for up to 50-percent of the equipment cost for soil moisture probes, pivot monitoring and control systems, telemetry, plant stress monitoring and on-farm weather stations.

The Dumas field day, in cooperation with Crop Production Services (CPS), was held at the North Plains Water Conservation Center ten miles north of Dumas. Presentations covered a variety of topics including water efficiency and fertility, cotton and corn varieties based on gallons per minute on drip and pivot, and updates on the district’s “3-4-5 Gallon Production Maximization (GPM)” project. The program was rounded-out by Russ Hodges from AquaSpy, Inc., discussing updates on the district’s “3-4-5 GPM” 2016 final report can be found on the district’s website at http://northplainsgcd.org/conservationprograms/agricultural-conservation/3-4-5-demonstration-project/, or a hard copy of the report can be picked up at the district’s office at 603 E. 1st St, Dumas, TX. The grower day presentations were recorded and are available for viewing on the district’s YouTube channel at https://tinyurl.com/y7fpegw2.
District Water Levels

Annually the district monitors declines in water levels as an important part of its data collection efforts which contributes to the management of the area’s groundwater resources. The district tracks decline in groundwater by maintaining a network of over 435 water-level monitor wells. District monitor wells are measured in January and February after the majority of the season’s agricultural pumping is completed and measuring is completed by mid-March. The information is analyzed and used to create maps that show average water level changes across the district. The data helps the district make reasonable, long-term management decisions based on accurate and current information.

The district began drilling its own dedicated monitor wells in 2007 and also began installing water level monitoring equipment in many of them. The equipment records measurements every 12 hours. The district has drilled or owns 62 dedicated monitor wells and has installed monitoring equipment in 46 of those. These continuous measurements create a valuable record of the ongoing changes in water levels. These non-production wells are dedicated solely to data collection. Dedicated, non-production monitor wells provide information with a greater degree of accuracy, reliability and consistency than do the other types of wells the district may monitor. They are also available, if necessary, for conducting water quality analyses and other aquifer tests that cannot easily be conducted in other types of wells.

Changes in water levels in district monitor wells vary from rises in some instances to declines that locally may exceed 8-10 feet per year. Each county in the district has areas of little to no decline, as well as areas of much greater decline. Changes in the water level of the aquifer averaged for all the monitor wells of any county, or calculated from groundwater production data, however, overall show declining water levels.

Declines in the water table are caused predominately by pumping and are influenced by surface recharge and lateral flows into and out of the aquifer. Recharge of the aquifer from the surface comes from rainfall and snowmelt. The Panhandle of Texas receives such modest amounts of rain and snow and has such a high evaporation rate that there is little opportunity for surface recharge to appreciably affect water levels.

The water level measurements resulting from the 2016 production season have been gathered, tabulated and published annually the district monitors declines in water levels as an important part of its data collection efforts which contributes to the management of the area’s groundwater resources. The district tracks decline in groundwater by maintaining a network of over 435 water-level monitor wells. District monitor wells are measured in January and February after the majority of the season’s agricultural pumping is completed and measuring is completed by mid-March. The information is analyzed and used to create maps that show average water level changes across the district. The data helps the district make reasonable, long-term management decisions based on accurate and current information.

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Average depth to water and comparisons of average declines in select district water level monitor wells.

### County and Average Annual Feet of Decline

<table>
<thead>
<tr>
<th>County</th>
<th>Average Annual Feet of Decline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dallam</td>
<td>2.0</td>
</tr>
<tr>
<td>Hansford</td>
<td>1.6</td>
</tr>
<tr>
<td>Hartley</td>
<td>2.7</td>
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<tr>
<td>Hutchinson</td>
<td>2.2</td>
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<tr>
<td>Lipscomb</td>
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<tr>
<td>Moore</td>
<td>2.5</td>
</tr>
<tr>
<td>Ochiltree</td>
<td>0.8</td>
</tr>
<tr>
<td>Sherman</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Average annual declines in water level are calculated values created using reported annual groundwater production and an estimated aquifer specific yield of 18 percent.

Average county declines and average declines observed in monitor wells differ because district monitor wells are predominately located near areas of high pumping. This bias in monitor well location causes an over estimation of declines when used to calculate county averages.
WaterWise Program Saves Millions of Gallons of Water

The district began the WaterWise Conservation Education Program for fifth graders in 2010, offering water conservation kits and education free of charge to teachers, students and their families throughout the district.

“The WaterWise Program was chosen to be offered by the district because of its unique combination of in-class conservation education and interactive, home-based conservation activities,” said Kirk Welch, the district’s assistant general manager for outreach. “This year 620 teachers, students and their families made changes in their behavior that will result in almost 4-million gallons of water being saved annually.” WaterWise achieves additional results that are difficult to measure by causing families to adjust their attitudes and actions regarding our most precious resource.

The program begins with classroom discussions teaching the importance of using water and energy efficiently, followed by hands-on, creative problem solving. Next, participants take home a WaterWise Kit that contains conservation tools. With the help of their parents/guardians, they install the tools in their home and complete a home survey. Here are a few samples of questions asked on the home survey.

Did you install the high efficiency showerhead? Yes - 42%
Did you work with your family on this program? Yes - 71%
Did you install the high efficiency showerhead? Yes - 42%
Did you install the high efficiency showerhead? Yes - 42%

Before installing the conservation tools in their homes, parents/guardians and students measured the efficiency of pre-existing devices so they could calculate savings generated using the new devices. Using the family habits collected from a home survey as the basis for this calculation, six hundred twenty (620) households are expected to save the following resource totals. Savings from these actions and new behaviors will continue for many years to come.

**PROJECTED ANNUAL SAVINGS**

- 3,981,672 gallons of water saved
- 14,990 therms of gas saved
- 128,521 kWh of electricity saved
- 3,981,672 gallons of wastewater saved

**PROJECTED LIFETIME SAVINGS**

- 24,100,366 gallons of water saved
- 94,177 therms of gas saved
- 808,893 kWh of electricity saved
- 24,100,366 gallons of wastewater saved

By installing and monitoring the new efficiency tools in their own homes, students can measure what they learned with actual water, energy, and monetary savings! These savings benefit both the participating student households and their communities.

The school-based WaterWise Program is fully implemented and designed to generate immediate and long-term savings by bringing interactive “real world” education home with motivated students. The program staff identifies and enrolls students and teachers within the designated service territory. Materials meet state and national educational standards, which allow the program to easily fit into teachers’ existing schedules and requirements. Donna Smith from Dalhart Intermediate School said “I love the whole thing. Home and school can get involved.”

Students were asked to complete a ten-question test before the program was introduced and then again after it was completed to determine the knowledge gained through the program. On average students answered 60-percent of the questions correctly prior to being involved in the program and improved to answer 79-percent correctly following participation.

This article was compiled from excerpts from the 2016-2017 North Plains GCD WaterWise Program Summary Report.

Jones Joins North Plains Groundwater Conservation District

Karen Jones is the new Administrative Support Specialist for the district, assisting with permitting, production reporting and monitoring programs, grant reporting and other aspects of the district.

Originally from Amarillo, Jones moved to Dumas in May 2015 after working for First Street Church for eight months. “I just got tired of the drive and decided to make it permanent!” Jones said.

Prior to working for First Street Church, Jones was employed by a medical software company as a product specialist and software trainer for three years training and supporting over 3,000 medical offices nationwide.

After moving to Dumas, Jones worked at Ag Producers Co-Op initially as a medical office coordinator. She was employed for eight months. “I just got tired of the drive and decided to make it permanent!” Jones said.

Jones became aware of the job opening at the district, and said “the job description just screamed my name!” Based on her previous track record of maintaining reporting and tracking data and documentation, the district is pleased to welcome Karen Jones to the team and excited about her current and future contributions to the mission.

“I have lived in the Panhandle my entire life, but never in the agricultural area. I was introduced to the agriculture way of life and enjoyed it immensely!”

Jones became aware of the job opening at the district, and said “the job description just screamed my name!” Based on her previous track record of maintaining reporting and tracking data and documentation, the district is pleased to welcome Karen Jones to the team and excited about her current and future contributions to the mission.

“I have lived in the Panhandle my entire life, but never in the agricultural world. Diving into this field is exciting. You never realize how much work goes on behind the scenes, until you see it first-hand. It brings a greater appreciation for what all of our farming families do for us.”

U.S. Drought Monitor

October 17, 2017

(Released Thursday, Oct. 19, 2017)

http://droughtmonitor.unl.edu/
North Plains GCD volunteered in the Dalhart and Perryton communities this summer. Dalhart’s famous XIT Rodeo was August 3-5 where the district worked at drink stations all three days during the free feeds for their community. The district also ran a concession stand Friday night during the rodeo. Perryton’s annual Wheatheart Block Party brought the community together on August 17, where the district set up their canopy and handed out free water, along with water-saving kits and other free giveaway items. Thank you to both communities for allowing the district to participate! We enjoyed our time getting to know more of you and joining in the celebrations!

The district will partner with Texas A&M AgriLife Extension and Research to offer a workshop exploring the topic of rainwater harvesting. Charles Hillyer, Ph.D., Assistant Professor, Extension Specialist – Irrigation Engineer, will present the workshop that is scheduled for 9 am – 12 pm on Saturday, October 28 at North Plains Groundwater Conservation District at 603 East 1st St. Rainwater harvesting systems can be as simple as a rain chain positioned over a planter box, or as complex as multiple integrated catchment areas and storage facilities with treatment systems to produce a potable drinking water supply. Hillyer will give an overview of the principles of rainwater harvesting to inform the mildly interested and provide a head start to anyone wanting to plan their own system. Please RSVP by Thursday, October 26 by calling the office at 806-935-6401, or emailing info@northplainsgcd.org. Registration for the workshop is limited.

Rainwater Harvesting Workshop

Save Paper and Water by Choosing our E Newsletter

North Plains GCD now offers our district newsletters by email. If you would like us to send you a digital copy of the newsletter, you can go online at www.northplainsgcd.org/sign-e-news/ and fill out the form, or just email aholguin@northplainsgcd.org. You can also go online to download previous newsletters, and find us on Facebook, Twitter and Instagram.